

Applicants thank Examiner Hollington for his careful examination of this application and the clear explanation of the rejections. In response, applicants amend the application as follows:

1. canceling claims 1-4 and 6-10.
2. amending claim 5 to overcome the 102 rejection

Claim 5, as amended, requiring using the generated voltage to adjust the first operating frequency. The Krause patent does not disclose this element; therefore it does not anticipate claim 5.

The Krause patent discloses a digital tachometer including a photo-optical sensor for measuring the speed of a rotating or reciprocating object.¹ The tachometer has a phase locked loop 17, which includes a phase comparator 30, a low pass filter 31, an error amplifier 32, and a voltage controlled oscillator 33.² The phase comparator 30 compares a frequency derived from the signal output of the sensor probe and the frequency of the voltage controlled oscillator and generates an error voltage.³ The error voltage is filtered and amplified and applied to the control input of the voltage controlled oscillator at point 16D, causing the voltage controlled oscillator frequency to vary in a direction that reduces the frequency difference between the output of the voltage controlled oscillator and the input signals.⁴

It is clear that the error voltage generated from the comparator is used to change the frequency of the voltage controlled oscillator, which is part of the digital tachometer. The frequency of the rotating or reciprocating object is not changed by the error voltage, which is logical because it is this frequency that the tachometer is designed to measure.

Because the Krause patent does not disclose at least the element of using the generated voltage to adjust the first operating frequency, it does not anticipate claim

¹ See US 4,031,466, Field of the Invention.

² See Ibid., col. 4, ll. 51-54.

³ See Ibid., col. 4, l. 9 to col. 5, l. 8.

⁴ Ibid., col. 5, ll. 25-30.

5; and therefore claim 5 stands patentable over the Krause patent.

3. inserting new claims 21-25.

Claim 21 describes a test system for testing a plurality of integrated circuit devices. The system includes many elements not disclosed in the prior art references cited in the Office Action. In particular, the references do not disclose a board adapted to accommodate a plurality of integrated circuit devices to be tested; a plurality of integrated circuit device under test (DUT) on the board; a plurality of clock circuits, each generating a operating frequency for a DUT; a plurality of phase comparator devices affixed on the tester; and the clock circuit including a voltage controlled oscillator (VCO) circuit operable to adjust the DUT operating frequency based on the output signal of the phase comparator device.

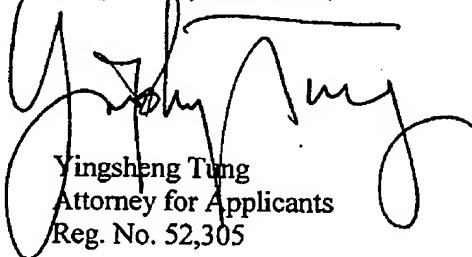
Because at least these elements of claim 21 are not disclosed in the cited references, claim 21 stands patentable.

Claims 22-25 properly depend on claim 21 with additional limitations, not all of them disclosed in the cited references. In particular, claim 22 limits the comparator devices not be affixed on the test board that holds a plurality of DUTs, as depicted in Fig. 1; claim 23 further requires that a portion of the VCO circuit be embedded in the integrated circuit DUT as depicted in Fig. 2A. Applicants respectfully submit that claims 22-25 stand patentable over the cited references.

In summary, applicants respectfully submit that the amended application is in allowable form and the pending claims distinguish over the cited references and stand patentable. Applicants respectfully request further examination of this application and timely allowance of the pending claims.

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Respectfully submitted,



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